## **EAST Search History**

## EAST Search History (Prior Art)

Ref#	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	0	powder near3 weld\$4 with enclos\$7 near2 preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:21
L2	0	powder near3 weld\$4 same enclos\$7 near2 preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:21
L3	2	powder near3 weld\$4 and enclos\$7 near2 preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:22
L4	0	(laser beam) near4 weld\$4 with (powder particle particulate) near4 fill\$2 and enclos \$7 near2 preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:24
L5	0	(laser beam) near4 weld\$4 with (powder particle particulate) near4 fill\$2 same preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:24
L6	89	(laser beam) near4 weld\$4 with (powder particle particulate) near4 fill\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03
L7	23	(laser beam) near4 weld\$4 with (powder particle particulate) near4 fill\$2 and build \$4	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:24
L8	1	("6024792").PN.	USPAT; USOCR	OR	OFF	2010/05/03 10:27
L9	4	"0740977"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 10:28

L10	222	("3528861"   "3676085"   "3754903"   "4152223"   "4313760"   "4346137"   "4449416"   "4585481"   "4458782"   "4743514"   "4758480"   "4973445"   "5302789"   "5312584"   "5789301"   "5888451"   "5893980"   "6024792"   "FE32121").FN. OR	US-PGPUB; USPAT; USOOR	OR	ON .	2010/05/03
L11	2	("7014923").URPN. "20070007260"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM TDB	OR	ON	2010/05/03 10:56
L12	1	L11	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 10:56
L13	1	12 and subsequent\$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 10:56
L14	57	hollow near2 blade and dampen\$3 with (hollow blade)	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 10:57
L15	3	hollow near2 blade with (fill\$3 insert\$3) same dampen\$3 with (hollow blade)	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:00
L16	16	"5233150"	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:14
L17	1	("5233150").PN.	USPAT; USOCR	OR	OFF	2010/05/03 11:14
L18	37	hollow near2 blade and subsequent\$4 near4 insert\$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:39
L19	1	hollow near2 blade and subsequent\$4 near4 insert\$4 with fill \$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:41

L20	5	hollow near2 blade and subsequent\$4 near4 insert\$4 with (inside within)	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:41
L21	41	(turbo turbine) with blade and laser with powder with buil\$4 adj up	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:57
L22	1	(turbo turbine) with blade and laser with powder with buil\$4 adj up and rotor adj holder	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:58
L23	12	(turbo turbine) with blade and laser with powder with buil\$4 adj up and rotor with ring	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:58
L24	20	(turbo turbine) with blade and laser with powder with buil\$4 adj up and rotor with (ring stator)	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:58
L25	2	(turbo turbine) with blade and laser with powder with buil\$4 adj up and rotor with (ring stator) with weld\$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:58
L26	1	(turbo turbine) with blade and laser with powder with buil\$4 adj up and rotor with (ring stator) same weld\$4 not 25	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 11:59
L27	1	rotor with holder near4 blade near6 weld\$4 and powder near4 weld \$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:06
L28	2	rotor with dis? near4 blade near6 weld\$4 and powder near4 weld \$4	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:06
L29	1	rotor with dis? with blade with weld\$4 and powder near4 weld\$4 not 28	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:07
L30	1	rotor and (dis? holder) with blade with weld\$4 and powder near4 weld \$4 not 28	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:08

L31	20	rotor with blade with weld\$4 and powder near4 weld\$4 not 28 not 29	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:08
L32	0	rotor with blade with weld\$4 and powder near4 weld\$4 and blade with ceramic not 29	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:09
L33	0	(rotor dis?) with (blade fin) with weld\$4 and powder near4 weld\$4 and blade with ceramic not 29	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:10
L34	0	(rotor dis?) with (blade fin) with weld\$4 and powder near4 weld\$4 and (blade fin) with ceramic not 29	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:10
L35	9	(rotor dis?) with (blade fin) with weld\$4 and powder near4 weld\$4 and (blade fin) and ceramic not 29	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:10
L36	10	(rotor dis?) with (blade fin) with weld\$4 same powder near4 weld\$4	US-PGPUB; USPAT; USOOR	OR	ON	2010/05/03 12:14
L37	6	(rotor dis?) with (blade fin) with weld\$4 same powder near4 weld\$4 same laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:16
L38	19	(rotor dis?) with (blade fin) with weld\$4 and powder near4 weld\$4 and weld\$4 with laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:17
L39	8	(rotor dis?) with (blade fin) with weld\$4 same powder near4 weld\$4 and weld\$4 with laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:18
L40	50	join\$4 near4 weld\$4 same powder near4 weld\$4 and weld\$4 with laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:18
L41	20	join\$4 near4 weld\$4 same powder near4 weld\$4 same weld\$4 with laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:19

L42	20	join\$4 near4 weld\$4 with powder same weld \$4 with laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:21
L43	12	join\$4 near4 weld\$4 near6 powder same weld\$4 near6 laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:21
L44	12	connect\$4 near4 weld \$4 near6 powder same weld\$4 near6 laser	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:23
L45	2	clad\$4 near4 weld\$4 near6 powder same weld\$4 near6 laser same join\$3	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:26
L46	19	clad\$4 near4 weld\$4 near6 powder same weld\$4 near6 laser not 45	US-PGPUB; USPAT; USOCR	OR	ON	2010/05/03 12:27
L47	1	("5887332").PN.	USPAT; USOOR	OR	OFF	2010/05/03 12:33
L48	38	(US-20070007260-\$ or US-20050007260-\$ or US-200500005444-\$ or US-20060011487-\$). did. or (US-6936118-\$ or US-6730178-\$ or US-6730178-\$ or US-472410458-\$ or US-472410458-\$ or US-5701669-\$ or US-5701669-\$ or US-6542843-\$ or US-567234-\$ or US-567234-\$ or US-5687310-\$ or US-7021898-\$ or US-568180-\$ or US-4736608-\$ or US-4736608-\$ or US-4736608-\$ or US-4736608-\$ or US-637108-\$ or US-637108-\$ or US-637108-\$ or US-637108-\$ or US-637108-\$ or US-637108-\$ or US-503014-\$ or US-503014-\$ or US-5038014-\$ or US-5038018-\$ or US-5038018-	US-PAT; USPAT; USOCR; DERWENT	OR	ON	2010/05/03 12:38

	***************************************	2648388-\$).did. or (DE-19547903-\$ or EP- 496181-\$ or JP- 93055233-\$ or EP- 70773-\$ or US- 4835357-\$).did.			***************************************	·
L49	22	48 and laser	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 12:38
L50	2	"19547903"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 12:41
L51	17	48 and powder with laser	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 13:12
L52	1	48 and ceramic with plastic	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 13:15
L53	1	48 and weld adj cladding with powder	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/03 13:20
S1	2	"20070007260"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 10:08
82	10	((buil? adj up) buil?up) with weld\$4 with (substructure preform \$2) and weld\$4 same (gas turbine rotor blade turbo turbomachin\$5)	US-PCPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21

S3	<u>Q</u>	(multiple plural\$4) adj2 (layer bead) with weld\$4 same weld\$4 with (substructure preform\$2) and weld \$4 same (gas turbine rotor blade turbo turbomachin\$5)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	©CR		2009/10/21
S4	O	(multiple plural\$4) adj3 (layer bead) with weld\$4 same weld\$4 with (substructure preform\$2) and weld \$4 same (gas turbine rotor blade turbo turbomachin\$5) not \$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:11
S5	O	(multiple plural\$4) adj4 (layer bead) with weld\$4 same weld\$4 with (substructure preform\$2) and weld \$4 same (gas turbine rotor blade turbo turbomachin\$5) not \$3	US-PCPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21
S6	111	(multiple plural\$4) adi/2 (layer bead) with weld\$4 same weld\$4 with (reinforc\$5 substructure preform \$2) and weld\$4 same (gas turbine rotor blade turbo turbomachin\$5) not \$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:12
<b>S</b> 7	159	((buil? adj up) buil?up) with weld\$4 with (reinforc\$5 substructure preform \$2) not \$2 not \$3 not \$6	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:17
S8	204	((buil? adj up) buil?up) with weld\$4 with core	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:21
S9	2	((buil? adj up) buil?up) with weld\$4 with core with (substructure preform\$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:21

S10	0	(multiple plural\$4) adj2 (layer bead) with weld\$4 with core with (substructure preform \$3)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:22
S11	50	(multiple plural\$4) adj2 (layer bead) with weld\$4 with core	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:22
S12	1	(multiple plural\$4) adj2 (layer bead) with weld\$4 with preform	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 11:25
S13	2	"19547903"	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 13:00
S14	32	("20020016564") "20030042233"   "3777106"   "4195475"   "4297361"   "426463"   "4509673"   "4775092"   "4832252"   "4841117"   "4832252"   "4841117"   "5067234"   "5147999"   "5165758"   "5231288"   "5235745"   "5231228"   "5332074"   "648927"   "6488367"   "6488367"   "6488367"   "6488367"   "6689595"   "66754955").FN. OR	US-PGPUB; USPAT; USOCR	OR	08	2009/10/21 13:01

		("7449658").URPN.				***************************************
S15	31	S14 and weld\$4	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:04
S16	10	S14 and weld\$4 same powder	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:06
S17	27	laser with (buildup up) adj weld\$4 with powder	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:13
S18	17	laser near2 powder with (buildup up) adj weld\$4	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:13
S19	9	laser near2 powder with (buildup up) adj weld\$4 same (gas turbine rotor blade turbo turbomachin\$5)	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:14
S20	27	"4014808"	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:16
S21	3	S7 and powder with weld\$4	US-PGPUB; USPAT; USOCR	OR	ON	2009/10/21 13:48
S22	114	(US-20070007260-\$ or US-20050005444-\$). did. or (US-6936118-\$ or US-6730178-\$ or US-4424482-\$ or US-4726104-\$ or US-570169-\$ or US-4322596-\$ or US-64322596-\$ or US-64322596-\$ or US-64322596-\$ or US-64322596-\$ or US-643227-\$ or US-6469271-\$ or US-6469271-\$ or US-667234-\$ or US-667234-\$ or US-667234-\$ or US-667234-\$ or US-6469271-\$ olid. or (DE-19547903-\$).did.	US-PGPUB; USPAT; DEFWENT	OR	ON	2009/10/21
<b>S2</b> 3	7	S22 and laser with powder	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 13:49
S24	1	("5233150").PN.	USPAT; USOCR	OR	OFF	2009/10/21 13:52
S25	4	("5233150"   "5701669").PN.	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 13:53

S26	104	rotor with blade with dampen\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 14:02
S27	5	rotor with blade with dampen\$3 near5 (inside within enclosed interior)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 14:02
S28	17	rotor with blade and (blade rotor) with dampen\$3 near5 (inside within enclosed interior)	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 14:03
<b>S</b> 29	12	\$28 not \$27	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2009/10/21 14:03
S30	17	(US-20070007260-\$ or US-20050029235-\$ or US-20050029235-\$ or US-20050005444-\$). did. or (US-6936118-\$ or US-6730178-\$ or US-4244482-\$ or US-7449658-\$ or US-4726104-\$ or US-5701669-\$ or US-6428243-\$ or US-6469271-\$ or US-5233150-\$ or US-7021898-\$).did. or (DE-19547903-\$ or EP-496181-\$).did.	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:05
S31	13	S30 and turbine	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:15
S32	11	S30 and powder	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:15
S33	10	S30 and powder with weld\$3	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:20
S34	0	weld\$3 with support adj preform same enclos\$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:36

S35	2	weld\$3 with support\$3 adj (preform\$2 plug \$4) same enclos\$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:36
S36	0	build\$3 adj up with support\$3 adj (preform \$2 plug\$4) same enclos \$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:36
S37	0	build\$3 adj up adj2 weld\$4 same support \$3 adj (preform\$2 plug \$4)	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:39
S38	18	build\$3 adj up adj2 weld\$4 same (preform \$2 plug\$4)	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:39
S39	18	S38 and weld\$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:54
S40	0	preform\$2 adj enclos \$4 adj5 weld\$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:55
S41	0	preform\$2 adj encapsulat\$4 adj5 weld \$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:56
S42	4	preform\$2 near2 (encapsulat\$4 enclos \$4) near5 weld\$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:56
<b>S</b> 43	23	(nonmetal\$4 ceramic) near2 (encapsulat\$4 enclos\$4) near5 weld \$4	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 13:58
S44	22	"228"/\$.ccls. and (encapsulat\$4 enclos \$4) near5 weld\$4 and (turbine turbo) same (blade rotor)	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 14:27
S45	38	"228"/\$.ccls. and build near5 weld\$4 and (turbine turbo) same (blade rotor)	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 14:27
S46	22	"228"/\$.ccls. and build near5 weld\$4 same (turbine turbo) same (blade rotor)	US-PGPUB; USPAT; DERWENT	OR	ON	2009/10/30 14:28
S47	8	laser with powder with weld\$4 with preform\$2	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 11:59

S48	0	laser same powder with weld\$4 with preform\$2 not S47	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:23
S49	5	laser with weld\$4 and powder with weld\$4 with preform\$2 not S47	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:23
S50	0	powder with build\$3 adj weld\$4 with preform\$2 not S47 not S49	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:26
S51	0	powder with build\$3 adj weld\$4 and preform\$2 with backing	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:26
S52	0	powder with build\$3 adj weld\$4 and preform\$2 with back\$3	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:27
S53	0	powder with build\$3 adj weld\$4 and preform\$2 near4 plug	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:27
S54	0	powder with build\$3 adj2 weld\$4 and preform\$2 near4 plug	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:27
<b>S</b> 55	0	(powder particle particulat) with build\$3 adj2 weld\$4 and preform\$2 near4 plug	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:28
S56	8	(powder particle particulat) with build\$3 adj2 weld\$4 and preform	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:28
S57	8	S56 not S47	US-PGPUB; USPAT; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2010/05/02 12:28

S58	8	laser with powder with weld\$4 with composite	OR	ON	2010/05/02 12:44
S59	0	laser with powder with weld\$4 with composite same build\$3	OR	ON	2010/05/02 12:45

## 5/3/2010 2:02:56 PM

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